

CLAIMS:

1. An air conditioner having a housing including a base plate fixed to a wall in a room and an exterior panel supported on said base plate, said exterior panel being provided with an air inlet on the upper surface side thereof and an air outlet on the lower surface side thereof, and said housing containing a heat exchanger and an air blower in an air passage connecting said air inlet to said air outlet, wherein

on the front side of said air outlet, a recess with a predetermined depth, which is depressed toward the inside of said housing, is formed so as to connect with said air passage, and in said recess, a vertical wind deflector which turns in the up-and-down direction around a horizontal rotating shaft and a support frame which supports said vertical wind deflector are arranged;

said support frame has a rotating shaft on the rear edge side close to said air passage, and is pivotally supported by a side plate of said recess via said rotating shaft, and a front edge of said support frame is urged toward said recess by a first spring;

in a state in which said vertical wind deflector is arranged on the lower surface side of said support frame, the front edge thereof is rotatably supported on the front edge side of said support frame via predetermined pivotally supporting means, and a rear edge of said vertical wind deflector is urged toward the lower surface side of said support frame by a second spring;

said support frame is provided with driving force transmitting means including an input shaft, which is connected to a motor mounted on the side plate side of said recess and is rotatably inserted in said rotating shaft, and an output shaft, which is connected to said input shaft via predetermined mechanical connecting means and gives a rotation driving force of said motor to said vertical wind deflector;

at the cooling operation time, said motor is rotated in the direction against the urging force of said first spring to open the front edge sides of said support frame and said vertical wind deflector integrally; and

at the heating operation time, said motor is rotated in the direction against the urging force of said second spring to open only the front edge side of said vertical wind deflector.

2. The air conditioner according to claim 1, wherein at a rear edge of said air outlet connecting with a back-side wind introducing surface of said air passage, a diffuser which changes the opening area of said air outlet is provided so as to be capable of being opened and closed, and said diffuser is provided with a transverse wind deflector capable of being turned in the transverse direction, which is perpendicular to said vertical wind deflector.

3. The air conditioner according to claim 1, wherein said vertical wind deflector is a second vertical wind deflector, and a first vertical wind deflector is disposed on the rear edge side in said air outlet so as to be adjacent to said second vertical wind deflector, and also the longitudinal width of said second vertical wind deflector is larger than the longitudinal width of said first vertical wind deflector.

4. The air conditioner according to claim 1, wherein the upper end surface of said recess is formed into an arcuate shape along the turning path of the front edge side of said vertical wind deflector.

5. The air conditioner according to claim 1, wherein said mechanical connecting means connecting to said input shaft and said output shaft consists of an odd number of intermediate gears.

6. The air conditioner according to claim 1, wherein said mechanical connecting means connecting to said input shaft and said output shaft consists of a connection belt.

7. The air conditioner according to claim 1, wherein said driving force transmitting means is housed in a gear box consisting of a box body in which a side face formed integrally with said support frame is open and a lid body installed detachably to the opening of said box body.

8. The air conditioner according to claim 1, wherein in the operation stop state, said vertical wind deflector is included in a part of outside shape of said housing so as to hide said recess.